ANNEX 1

Component (reference)	Analysis			
	Mode of isolation	Réf.	Identification/ Quantification	Ref.
Amino compounds				
alanine; (8,16,23,28,45,46,47,48,50)	IE, RE	16,53	AAA, GCMS, SP	16,23,34,53,54, 56
asparagine; (8,16,23,28,46,50)	IE	16	AAA, SP	16,23,28
leucine/isoleucine; (8,16,23,28,46,47,48,50)	IE, RE	16,47	AAA, SP, GCMS	16,23,28,47,48, 50
valine; (8,16,23,28,46,47,50)	IE, RE	16	AAA, SP, GC	16,23,28,50
glutamine; (8,16,23,28,46,50)	IE	16	AAA, SP	16,23,28
serine/homoserine; (8,16,23,28,46,47,50)	IE, RE	16,47	AAA, SP, GC	16,23,28,47,50
glycine; (8,16,23,22,28,46,47,50)	IE, RE	16,47	AAA, SP, GC	16,23,28,47,50
phenylalanine; (8,16,18,23,46,47,48)	IE, RE	16,47	HPLC, AAA, GC	16,18,23,47,50
threonine; (8,16,23,46,47)	IE, RE	16,47	AAA	16,23,47
tyrosine; (8,16,18,26,46,47,50)	IE, RE	16,47	HPLC, AAA, GC	16,18,26,47,50
lysine; (8,16,23,22,28,46,47,50)	IE, RE	16,47	AAA, SP, GC	16,23,28,47,50
proline; (8,16,23,46,50)	IE	16	AAA, GC	16,23,50
methionine; (8,16,23,46,50)	IE	16	AAA, GC	16,23,50
cystathionine; (8,46)				
ornithine; (8,16,23,46,50)	IE	16	AAA, GC	16,23,50
citrulline; (23,16)	IE	16	AAA	16,23
arginine; (8,11,16,28,46)	IE	16	AAA, SP	16,23,28
glutamate; (47,48,50)	RE, IE	47	GCMS, AAA	47,48,50
aspartate; (47,48,23,50)	RE, IE	47	GCMS, AAA	47,48,50
tryptophan; (8,18)			HPLC	18
histidine; (8,23,16,46,47)	IE, RE	16,47	AAA	16,23,47
cysteic acid; (8,46)				
aspartic acid; (8,16,23,28,46)	IE	16	AAA, SP	16,28
glutamic acid; (8,16,23,22,28,46)	IE	16	AAA, SP	16,23,28
-amino butyric acid; (8,16,28,46)	IE	16	AAA, SP	16,28
amino adipic acid; (16)	IE	16	AAA	16
ethanolamine; (16)	IE	16	AAA	16
2,4-dihydroxy-1,4-benzoxazin-3-one; (34)	XAD-4	34	HPLC, GC	34
ammonium; (37)			Biotronic	37
ammonia; (8)				
cystine; (16,46)	IE	16	AAA	16
benzoxazolin-2-one; (34)	XAD-4	34	HPLC, GC	34
6-methoxybenzolin-2-one; (34)	XAD-4	34	HPLC, GC	34
2,4-dihydroxy-7-methoxy-1,4-benzoazin-3-one; (34)	XAD-4	34	HPLC, GC	34
Organic acids				
oxalic acid; (8,37,46,47)	RE, IE	47	UV/Vis, HPLC	37,47
malic acid; (8,21,22,24,25,28,28,30,37,46,47)	RE, IE	30,47	UV/Vis, GC HPLC, IC, MS	24,28,28,30,37, 47
acetic acid; (8,46)				
propionic acid; (8,46)				
butyric acid; (8,46)				
valeric acid; (8,46)				
citric acid; (8,11,21,22,24,25,26,28,28,30,37,46,47)	RE, IE	30,47	QEA, Xspec,UV/Vis, IC, HPLC, GC,MS	8,24,28, 28,30,37,47
succinic acid; (8,24,28,28,30,37,46,47)	RE, IE	28,30 47	UV/Vis, GC HPLC, IC, MS	24,28,28,30,37, 47

fumaric acid; (8,28,29,37,47)	RE, IE	47	UV/Vis, GC HPLC, MS	28,29,37,47
glycolic acid; (8,46)				
deoxymugineic acid; (1)				
malonic acid; (8)				
2-ketogluconic acid; (38)	IE	38	GC, TLC, Xdif, SR, AA	38
tartaric acid; (8,29,37,47)	RE,IE	47	UV/Vis, GC, HPLC	29,37,47
isocitric acid; (37)			HPLC,UV/Vis	37
acolnitic acid; (29,47)	RE, IE	47	UV/Vis, HPLC	47
3-phenyl propionoic acid; (56)	XAD-4	56	GCMS	56
p-hydroxybenzoic acid; (4,9,41,54,56)	XAD-4	41,56	HPLC,GCMS	4,41,56
2,5-dihydroxybenzoic acid; (56)	XAD-4	56	GCMS	56
myristic acid; (56)	XAD-4	56	GCMS	56
p-hydroxycinnamic acid; (52,56)	XAD-4	56	GCMS	56
palmitic acid; (8,56)	XAD-4	56	GCMS	56
aconitic acid; (29)			GC	29
stearic acid; (8,56)	XAD-4	56	GCMS	56
oxalocetic acid; (29)	concentration	29	GC	29
uronic acid; (38)				
glutaric acid; (29)	concentration	29	GC	29
glyoxylic acid; (29)	concentration	29	GC	29
pentadecanoic acid; (52)	XAD-4	52	GCMS	52
Carbohydrates				
glucose; (8,16,29,38,46,47,48,50)	IE, RE, MF	47,50	GCMS, HPLC UV/Vis	16,29,47,48,50
fructose; (8,16,29,38,46,47,48,50)	IE, RE, MF	47,50	GCMS, HPLC UV/Vis	16,29,47,48,50
maltose; (8,46)				
galactose; (8,46,47)	IE, RE	47	UV/Vis, HPLC	47
ribose; (8,46,47,48)	IE, RE	47	GCMS, HPLC UV/Vis	47,48
xylose; (8,38,46,47)	IE, RE	47	UV/Vis, HPLC	47
rhamnose; (8,46)				
arabinose; (8,29,46,47)	IE, RE	47	UV/Vis, GC, HPLC	29,47
raffinose; (8,46)				
oligosaccharides; (8,46)				
myo-inositol; (50)	MF	50	GCMS, HPLC	50
deoxyribose; (8)				
sucrose; (8,16,29,47,48,50)	IE, RE, MF	47,50	GCMS, HPLC UV/Vis	16,29,47,48,50
deoxysugars; (8)				
Phenolic compounds				
salicylic acid; (54)	XAD-4	54	MNR, SP	54
p-hydroxybenzoic acid; (4,9,41,54)	XAD-4	41,54	MNR, SP, HPLC	4,41,54
vanillic acid; (4,41,54)	XAD-4	41,54	HPLC, MNR, SP	4,41,54
syringic acid; (4,15,52,54)	XAD-4, XAD-2	15,52, 54	GCMS, MNR, SP, HPLC	4,15,52,54
4-methoxyindole-3-acetonitrile; (54)	XAD-4	54	MNR, SP	54
pyrocatechol; (54)	XAD-4	54	MNR, SP	54
coumesterol; (9, 43,44)			HPLC	18
caffeic acid; (18,26)			HPLC	18
p-thiocyantophenol; (56)	XAD-4	56	GCMS	56
2-hydroxybenzothiazole; (56)	XAD-4	56	GCMS	56
3,4-dimethylbenzoic acid; (52)	XAD-4	52	GCMS	52
benzoic acid; (18,29,52,56)	XAD-4	52,56	HPLC, GC, MS	18,29,52,56
phenylacetic acid; (52)	XAD-4	52	GCMS	52
2-methoxyphenol; (52)	XAD-4	52	GCMS	52
hydrocinnamic acid; (52)	XAD-4	52	GCMS	52
cinnamic acid; (18,52,56)	XAD-4	52,56	HPLC, GCMS	18,52,56
2-methoxy phenylacetic acid; (52)	XAD-4	52	GCMS	52
3-hydroxy hydrocinnamic acid; (52)	XAD-4	52	GCMS	52

4-hydroxy-3-methoxy hydrocinnamic acid; (52)	XAD-4	52	GCMS	52
4-hydroxy-2-methoxycinnamic acid; (52)	XAD-4	52	GCMS	52
ferulic acid; (4,6,14,18,52)	XAD-4	52	HPLC, GCMS	4,18,52
cyclopropyl-p-benzoquinone (14)				
2,6-dimethoxy-p-benzonquinone (14)				
tetrafluorbenzoquinone (14)				
benzoquinone (14)				
SXSg (14)				
strigol (14)				
resorcinol (14)				
dihydroquinone (14)				
sinapic acid; (15,52)	XAD-4, XAD-2	15,52	GCMS, HPLC	15,52
2-(3',5'-dihydroxyphenyl)-5,6-dihydroxy-benzofuran; (34)	XAD-4	34	HPLC, MS, NMR, UV/Vis	34
Flavonoids				
kievitone; (26)			HPLC	26
4',7-dihydroxyflavone; (9,12,15,19,35,36,44)	XAD-2,CF, HPLC	9,15,36	HPLC, MS, NMR, EP, UV/Vis	9,12,15,35 44
4',7-dihydroxyflavanone; (9,12,15,19,35,36,44)	CF, HPLC	36	HPLC, MS, NMR, UV/Vis	35,36
formononetin-4',7-dihydroxyflavonone; (9,19,35,36,44)	CF, HPLC	36	HPLC, MS, NMR, UV/Vis	35,36
4',5,7-dihydroxyflavonone; [apigenin] (9,18,26,43)			HPLC	18,26
apigen-7-0-glucoside; (9,15)	XAD-2	15	MS, HPLC, EP	15
genistein; (15,17,18,43)	XAD-2	15	HPLC, MS, EP	15,18
3',4',5,7-tetrahydroxyflavone; [leuteolin] (9,15,18,15,26,42,43)	XAD-2	15	HPLC, EP, MS NMR, UV/Vis	15,18,26,42
4',7-dihydroxyisoflavone; [daidzein] (9,15,17,18,43,44)	XAD-2,CF, HPLC	9,15,17,44	EP,HPLC, MS, UV/Vis ,NMR	9,15,17, 18,44
3,4',5,7-tetrahydroxy flavone; [kaempferol] (9,15,18,26,43)	XAD-2	15	HPLC,EP, MS NMR, UV/Vis	15,18,26,43
coumestrol; (9,43,44)	HPLC	9	HPLC, UV/Vis	9
formononetin-7-0-(6"-0-malonylglucoside) ; (9,10)	CF, HPLC	10	MS, NMR, UV/Vis	10
formononetin; (9,14,18,36,44)	CF, HPLC	36,44	HPLC, NMR, MS, UV/Vis	9,18,36, 44
3',4',7-trihydroxyflavone; (9,15)	HPLC	9	UV/Vis	9
4'7-dihydroxy-3'methoxflavone; [geraldone] (9,12,44)	HPLC	9,44	HPLC, NMR, UV/Vis	9,12,44
4'-hydroxy-7-methoxyflavone; (9,44)	HPLC	44	HPLC, NMR	9,44
xenognosin A & B (14)				
Enzymes, Nucleotides & Chalcones				
invertase; (46,8)				
amylase; (46,8)				
protease; (46,8)				
guanine; (46,8)				
adenine; (46,8)				
polygalacturonase; (8)				
phosphatase; (7,8)				7
uridine/cytidine; (8)				
4,4'-dihydroxy-2'-methoxychalcone; (10,19,35,36)	CF, HPLC	36	HPLC, MS, NMR,UV/Vis	10,35,36
Fatty acids and stérols				
cholesterol; (8)				
palmitic acid; (8)				
-sitosterol; (8,50)	EP, TLC	50	GCMS	50
stigmasterol; (8,50)	EP, TLC	50	GCMS	50
campesterol; (50,8)	EP, TLC	50	GCMS	50
stearic acid; (8)				

oleic acid; (8)				
linoleic acid; (8)				
Acides gras 18:1; 18:2; 18:3; 20:0; 22:0; 24:0; (50)	chromatography	50	GCMS, HPLC	50
Others				
epi-3-hydroxy-mugineic acid; (2,45,53)	HPLC	53	HPLC	53
8-methylsulfinyloctyl isothiocyanate [histurin]; (54)	XAD-4	54	NMR, SP	54
benzyl isothiocyanate; (51,54)	XAD-4	51	GC	51
auxins; (8,32)				
scopoletin; (8,41)	XAD-4	41	HPLC	41
fluorescent substances; (8)				
vitamins; (8)				
hydrocyanic acid; (8)				
glycosides; (8)				
saponines; (8)				
Composés organiques phosphorés; (8)				
nematode cyst or egg hatching factors; (8,46)				
nematode attractants/nematocides; (8,46)				
fungal mycelium stimulants and inhibitors; (5,8,13)				
zoospore attractants; (5,8,33,46)				
spore and aclerotium germination stimulants and inhibitors; (5,8,39)				
parasitic weed germination stimulants; (8,39)	XAD-4	39	HPLC	39
medicarpins; (8,10,34)	CF, HPLC	10	MS, NMR, UV/Vis	10
medicarpin-3-0-glycoside; (8,10)	CF, HPLC	10	MS, NMR, UV/Vis	10
umbelliferone; (9,43,44)			HPLC, NMR	9,44
coumarins; (4,9,41,43)	XAD-4	41	HPLC	4,41
nodulation gene inducers; (8,43)				
assorted allelopathic compounds; (6,8,55)	XAD-4	55		
metal chelators; (8)				
ethanol; (47)			GC	48
methanol; (8)				
formaldehyde; (8)				
acetaldehyde; (8,48)				
proionaldehyde; (8)				
acetone; (8)				
ethylene; (8)				
propylene; (8)				
various volatiles; (3,5)				
gibberellins; (8, 18)			HPLC	18
cytokinins; (8)				

IE=ion exchange trap; GC=gas chromatography; HPLC=high performance liquid chromatography; MS=mass spectrometry; RE=rinse & evaporation; AAA=automatic amino-acid analyzer; NMR=nuclear magnetic resonance, CF=centrifugation; EP=electrophoresis; SP=spectrophotometry; MF=membrane filtering; TLC=thin layer chromatography; Xdiff= X-ray diffraction

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